

**WE CLAIM**

1. A method for maintaining a common session identifier in a network, comprising:  
providing a session identifier to an off-load server.
2. The method recited in Claim 1, wherein:  
providing the session identifier further comprises providing the session identifier as a  
non-required parameter in accordance with a tunnel protocol.
3. The method recited in Claim 1, wherein:  
providing the session identifier further comprises providing the session identifier in a  
session setup request.
4. The method recited in Claim 1, further comprising:  
determining whether the session identifier is provided as a non-required parameter in  
accordance with a tunnel protocol.
5. The method recited in Claim 4, further comprising:  
assigning, if the session identifier is not provided, a session identifier.
6. The method recited in Claim 1, further comprising:  
associating a start record with the session identifier.
7. The method recited in Claim 6, further comprising:  
providing the start record to a software module that provides for performing accounting  
processing.
8. The method recited in Claim 1, further comprising:  
associating a stop record with the session identifier.
9. The method recited in Claim 8, further comprising:  
providing the stop record to a software module that provides for performing accounting  
processing.
10. A method for maintaining a common session identifier in a network, comprising:  
determining whether the session identifier value is provided by an access server; and  
assigning, if the session identifier value is not provided by the access server, the session  
identifier value.

- 1 11. The method recited in Claim 10, further comprising:  
2 inspecting a parameter list for the session identifier value.
- 1 12. The method recited in Claim 10, wherein:  
2 determining whether the session identifier value is provided by the access server further  
3 comprises determining whether the session identifier value is contained within a  
4 non-required parameter string provided by the access server.
- 1 13. The method recited in Claim 10, further comprising:  
2 associating a start record with the session identifier.
- 1 14. The method recited in Claim 13, further comprising:  
2 providing the start record to a software module that provides for performing accounting  
3 processing.
- 1 15. The method recited in Claim 10, further comprising:  
2 associating a stop record with the session identifier.
- 1 16. The method recited in Claim 15, further comprising:  
2 providing the stop record to a software module that provides for performing accounting  
3 processing.
- 1 17. The method recited in Claim 10, further comprising:  
2 providing the session identifier from the access server to an off-load server.
- 1 18. The method recited in Claim 17, wherein:  
2 providing the session identifier further comprises providing the session identifier as a  
3 non-required parameter in accordance with a tunnel protocol.
- 1 19. A system, comprising:  
2 a network access server, wherein the network access server is configured to generate a  
3 session identifier, the network access server being further configured to provide  
4 the session identifier to an off-load server.
- 1 20. The system recited in Claim 19, further comprising:  
2 an off-load server, the off-load server being coupled to receive the session identifier from  
3 the network access server.
- 1 21. The system recited in Claim 19, further comprising:

2 a software module that is configured to perform authentication, the software module  
3 being further configured to receive the session identifier from the network access  
4 server.

1 22. The system recited in Claim 19, wherein:  
2 the network access server is further configured to provide the session in a non-required  
3 parameter list according to a tunnel protocol.

1 23. A system, comprising:  
2 an off-load server, wherein the off-load server is configured to receive a session  
3 identifier from a network access server.

1 24. The system recited in Claim 23, further comprising:  
2 a software module that is configured to perform authentication, the software module  
3 being further configured to receive the session identifier from the network access  
4 server.

1 25. The system recited in Claim 23, wherein:  
2 the off-load server is further configured to receive the session identifier from a network  
3 access server in a non-required parameter list according to a tunnel protocol.

1 26. The system recited in Claim 23, wherein:  
2 the off-load server is further configured to generate a start record, the off-load server  
3 being further configured to associate the start record with the session identifier;  
4 and

5 the off-load server is further configured to provide the start record to a software module  
6 that provides for performing accounting processing.

1 27. The system recited in Claim 23, wherein:  
2 the off-load server is further configured to generate a stop record, the off-load server  
3 being further configured to associate the stop record with the session identifier;  
4 and  
5 the off-load server is further configured to provide the stop record to a software module  
6 that provides for performing accounting processing.

1 28. An apparatus, comprising:  
2 means for providing a session identifier from an access server to an off-load server.

- 1           29.    The apparatus recited in Claim 28, wherein:  
2           means for providing a session identifier further comprises means for providing the  
3           session identifier as a non-required parameter in accordance with a tunnel  
4           protocol.
- 1           30.    The apparatus recited in Claim 28, wherein:  
2           means for providing a session identifier further comprises means for providing the  
3           session identifier in a session setup request.
- 1           31.    The apparatus recited in Claim 28, further comprising:  
2           means for determining whether the session identifier is provided as a non-required  
3           parameter in accordance with a tunnel protocol.
- 1           32.    The apparatus recited in Claim 28, further comprising:  
2           means for assigning, if the session identifier is not provided, a session identifier.
- 1           33.    The apparatus recited in Claim 28, further comprising:  
2           means for associating a start record with the session identifier.
- 1           34.    The apparatus recited in Claim 33, further comprising:  
2           means for providing the start record to a software module that provides for performing  
3           accounting processing.
- 1           35.    The apparatus recited in Claim 28, further comprising:  
2           means for associating a stop record with the session identifier.
- 1           36.    The apparatus recited in Claim 35, further comprising:  
2           means for providing the stop record to a software module that provides for performing  
3           accounting processing.
- 1           37.    An apparatus, comprising:  
2           means for determining whether a session identifier value is provided by an access server;  
3           and  
4           means for assigning, if the session identifier value is not provided by the access server,  
5           the session identifier value.
- 1           38.    The apparatus recited in Claim 37, further comprising:  
2           means for inspecting a parameter list for the session identifier value.

- 1 39. The apparatus recited in Claim 37, wherein:  
2 means for determining whether the session identifier value is provided by the access  
3 server further comprises means for determining whether the session identifier  
4 value is contained within a non-required parameter list provided by the access  
5 server.
- 1 40. The apparatus recited in Claim 37, further comprising:  
2 means for associating a start record with the session identifier.
- 1 41. The apparatus recited in Claim 40, further comprising:  
2 means for providing the start record to a software module that provides for performing  
3 accounting processing.
- 1 42. The apparatus recited in Claim 37, further comprising:  
2 means for associating a stop record with the session identifier.
- 1 43. The apparatus recited in Claim 42, further comprising:  
2 means for providing the stop record to a software module that provides for performing  
3 accounting processing.
- 1 44. The apparatus recited in Claim 37, further comprising:  
2 means for providing the session identifier from the access server to an off-load server.
- 1 45. The apparatus recited in Claim 44, further comprising:  
2 means for providing the session identifier further comprising providing the session  
3 identifier as a non-required parameter in accordance with a tunnel protocol.
- 1 46. A computer program product, encoded in computer readable media, comprising:  
2 a first set of instructions, executable on a computer system, configured to provide a  
3 session identifier to an off-load server.
- 1 47. The computer program product of claim 46, encoded in computer readable media,  
2 wherein:  
3 the first set of instructions, executable on the computer system, is further configured to  
4 provide the session identifier as a non-required parameter in accordance with a  
5 tunnel protocol.

1           48.    The computer program product of claim 46, encoded in computer readable media,  
2    wherein:  
3           the first set of instructions, executable on the computer system, is further configured to  
4           provide the session identifier in a session setup request.

1           49.    The computer program product of claim 46, encoded in computer readable media,  
2    further comprising:  
3           a second set of instructions, executable on the computer system, configured to determine  
4           whether the session identifier is provided as a non-required parameter in  
5           accordance with a tunnel protocol.

1           50.    The computer program product of claim 49, encoded in computer readable media,  
2    further comprising:  
3           a third set of instructions, executable on the computer system, configured to assign, if the  
4           session identifier is not provided, a session identifier.

1           51.    The computer program product of claim 46, encoded in computer readable media,  
2    further comprising:  
3           a second set of instructions, executable on the computer system, configured to associate a  
4           start record with the session identifier.

1           52.    The computer program product of claim 51, encoded in computer readable media,  
2    further comprising:  
3           a third set of instructions, executable on the computer system, configured to provide the  
4           start record to a software module that provides for performing accounting  
5           processing.

1           53.    The computer program product of claim 46, encoded in computer readable media,  
2    further comprising:  
3           a second set of instructions, executable on the computer system, configured to associate a  
4           stop record with the session identifier.

1           54.    The computer program product of claim 53, encoded in computer readable media,  
2    further comprising:  
3           a third set of instructions, executable on the computer system, configured to provide the  
4           stop record to a software module that provides for performing accounting  
5           processing.

1 55. A computer program product, encoded in computer readable media, comprising:  
2 a first set of instructions, executable on a computer system, configured to determine  
3 whether the session identifier value is provided by an access server; and  
4 a second set of instructions, executable on a computer system, configured to assign, if the  
5 session identifier value is not provided by the access server, the session identifier  
6 value.

1 56. The computer program product of claim 55, encoded in computer readable media,  
2 further comprising:

3 a third set of instructions, executable on a computer system, configured to inspect a  
4 parameter list for the session identifier value.

1 57. The computer program product of claim 55, encoded in computer readable media,  
2 wherein:

3 the first set of instructions, executable on a computer system, is further configured to  
4 determine whether the session identifier value is contained within a non-required  
5 parameter string provided by the access server.

1 58. The computer program product of claim 55, encoded in computer readable media,  
2 further comprising:

3 a third set of instructions, executable on a computer system, configured to associate a  
4 start record with the session identifier.

1 59. The computer program product of claim 58, encoded in computer readable media,  
2 further comprising:

3 a fourth set of instructions, executable on a computer system, configured to provide the  
4 start record to a software module that provides for performing accounting  
5 processing.

1 60. The computer program product of claim 55, encoded in computer readable media,  
2 further comprising:

3 a third set of instructions, executable on a computer system, configured to associate a  
4 stop record with the session identifier.

1 61. The computer program product of claim 60, encoded in computer readable media,  
2 further comprising:

3 a fourth set of instructions, executable on a computer system, configured to provide the  
4 stop record to a software module that provides for performing accounting  
5 processing.

1 62. The computer program product of claim 55, encoded in computer readable media,  
2 further comprising:

3 a third set of instructions, executable on a computer system, configured to provide the  
4 session identifier from the access server to an off-load server.

1 63. The computer program product of claim 62, encoded in computer readable media,  
2 wherein:

3 the third set of instructions, executable on a computer system, is further configured to  
4 provide the session identifier as a non-required parameter in accordance with a  
5 tunnel protocol.